

REMARKS/ARGUMENTS

Claims 16-33 remain pending in this application.

Rejection of Claims 16-22 and 32-33 under 35 U.S.C. 102(b)

Claims 16-22 and 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated over Chaney et al. (EP 0 622 771 A1).

The present invention as claimed in claim 16 provides a digital video reception device. The device includes means for receiving and demultiplexing a multiplexed digital stream as well as means for storing. The means of storage are comprised of two file systems having different recording block sizes.

The present invention as claimed in claim 32 provides an audio and video data recording device. The device includes a double file system. The first system is adapted to files of an audio/video stream type and the second file system is adapted to files of smaller size than the audio/video streams.

“The recording...is performed in blocks comprising (among other things) two areas of fixed size, one of which is reserved for video data and the other for audio data. Once a quantity of video data corresponding to the size of the video area has been demultiplexed, a complete block is written, regardless of the quantity of audio data received at that moment. By dint of the arrangement of the areas inside a block, the

nature of the PES packets recorded therein is known, thus avoiding labeling of each PES packet” (Page 2, lines 5-13).

Chaney et al. describe “a direct broadcast satellite system...which will transmit television and other ancillary signals in compressed and packeted form...Each program may include a number of services. A service is defined herein as a program component, such as a video signal, or an audio signal, or a closed caption signal...Each service of each program is identified by a unique service identifier (SCIS). Thus is if a program includes four service components, the program will be assigned four SCIDs” (Page 2, lines 5-10). Additionally, Chaney et al. describe direct broadcast satellite system which receives Electronic Program Guide information and uses it to tune to a carrier and select a signal packets associated with a desired program.

The Office Action asserts that Chaney et al. disclose the storage file systems of the present claimed invention. The applicants respectfully disagree. The program data described by Chaney et al. “is in a data file format” (Page 4, line 25-26). “Each program may include a number of services...such as a video signal, or an audio signal, or a closed caption signal” (Page 2, lines 7-8). However, unlike the storage file systems of the present claimed invention, including two file systems having different recording block sizes, Chaney et al. describe a video reception device for a program e.g. a video signal, audio signal, closed caption signal or data (see page 2, lines 7-8). Thus, a program data is not the equivalent of a storage file system and cannot have different recording block sizes. Although Chaney et al. describe program data in a data file format, Chaney et al. neither disclose nor suggest “means of storage comprising two

file systems having different recording block sizes” as recited in claim 16 of the present invention. Additionally, Chaney et al. neither disclose nor suggest “a double file system” as recited in claim 32 of the present invention.

The Office Action asserts further that Chaney et al. disclose a storage system comprising two file systems having different recording block sizes as in the present claimed invention. Chaney et al. reduce cost and minimize the receiver memory “by multiplexing a single memory for a plurality of uses. This memory, the rate buffer memory 15, is multiplexed between operating as a compressed video rate buffer, a compressed audio rate buffer...[and] storage...This [use of such a small memory] is only possible because the program guide is split between the master and special guides. The master guide data is relatively small and hence consumes little memory space” (Page 6, lines 10-15). However, this buffer memory disclosed by Chaney et al. merely multiplexes between data inputs. In each use it acts as a buffer memory, storing all the incoming data to be accessed at a later point. This is unlike the present claimed invention which stores incoming data within **blocks of memory** using two file systems. Chaney et al. aren’t at all concerned with defining data types by their respective memory block sizes as is the present claimed invention. Therefore, Chaney et al. neither disclose nor suggest “means of storage comprising two file systems having **different recording block sizes**” as recited in claim 16 of the present invention. Additionally, Chaney et al. neither disclose nor suggest “a double file system wherein a **first system** is adapted to files of an audio/video stream type and wherein a **second file system** is adapted to files of smaller size than the audio/video streams” as recited in claim 32 of the present invention.

As claims 17-22 and 33 are dependant on independent claims 16 and 32, it is respectfully submitted that they are allowable for the same reasons as discussed above in regards to independent claims 16 and 32. In view of the above remarks it is respectfully submitted that claims 16-22 and 32-33 are allowable.

In view of the above remarks and amendments to the claims it is respectfully submitted that there is no 35 USC 112 compliant enabling disclosure in Chaney et al. showing the above discussed features. It is thus further respectfully submitted that claims 16-22 and 32-33 are not anticipated by Chaney et al. It is thus, further respectfully submitted that this rejection is satisfied and should be withdrawn.

Rejection of Claims 16, 22-28 and 30-31 under 35 U.S.C. 102(b)

Claims 16, 22-28 and 30-31 are rejected under 35 U.S.C. 102(b) as being unpatentable over Nakase et al. (U.S. Patent No. 5,742,361).

The present invention, as recited in claim 28, provides a process for recording audio and video data in a digital television receiver. The process includes demultiplexing audio and video packets relating to one and the same program. The demultiplexed video data is simultaneously accumulated in a first memory and the demultiplexed audio data in a second memory. The accumulation in the memories is stopped following the obtaining of a predetermined quantity of video data in the first memory. The video data accumulated in the first memory and the audio data

accumulated in the second memory are recorded respectively in a first area of a block whose fixed size is equal to the predetermined quantity and in a second area of this block, the size of this second area being fixed and chosen in such a way that it is greater than or equal to the maximum quantity of audio data which can be accumulated while obtaining the predetermined quantity of video data.

Nakase et al. describe a data demultiplexer which on the basis of the results of analysis sends data read from the memory in the order of packet arrival to the decoder. The memory consists of “a packet buffer for storing received TS packets...The packet buffer can store a plurality of packets” (Col. 9, lines 56-58). “On the basis of the packet write address information...the analyzing processing unit 105 performs the packet analysis. Since the packet analysis must be performed in the order of packet arrival, the analyzing processing unit 105 has a first-in first-out memory (hereafter referred to as FIFO) and the packet write address information (packet buffer number) is stored in his FIFO one after another” (Col. 10, lines 24-31). “Upon receiving...transfer information from the FIFO, the video transfer control unit 106 or the audio transfer unit 107 transfers the data of the packet read out from the memory 104 to its output selectively according to the kind of video/audio in the order of packet arrival” (Col. 10, lines 50-54).

The Office Action asserts that Nakase et al. disclose means of storage comprising two file systems. Nakase et al. describe “PSI (Program Specific Information)...contained in the transport stream TS...The PSI (Program Specific Information) has a two-stage configuration, i.e. a PAT (Program Association Table)

and a PMT (Program Map Table)...The PAT packet is analyzed to derive the PID (Packet Identifier) of the PMT (Program Map Table)corresponding to the desired program number and then the PMT packet is analyzed to derive the PIDs (Packet Identifiers) of the packets containing the video and audio data of the desired program” (Col. 1, line 60 – Col. 2, line 6). However, PAT and PMT are merely data stored into the FIFO memory and used to find data within the packet buffer. PAT and PMT data are not equivalent to two separate storage file systems as in the present claimed invention. Furthermore, PAT and PMT data do not utilize two sets of recording block sizes, wherein the recording blocks are physically defined within the memory as in the present claimed invention. Thus, it is respectfully submitted that Nakase et al. neither disclose nor suggest “two file systems having different recording block sizes” as recited in claim 16 of the present invention. Additionally, Nakase et al. neither disclose nor suggest “recording of the video data accumulated in said first memory and of the audio data accumulated in the second memory respectively **in a first area of a block** whose fixed size is equal to said predetermined quantity and **in a second area of this block**, the size of this second area being fixed” as recited in claim 28 of the present invention.

The Office Action asserts further that Nakase et al. disclose means of storage comprising two file systems having different recording block sizes. Nakase et al. describe two storage means—a packet buffer and a First-In First-Out (FIFO) memory. The “packet buffer can store a plurality of packets” (Col. 9, lines 57-58). “Each packet contains coded video or coded audio and information related to the stream” (Col. 1, lines 51-52). “Since the packet analysis must be preformed in the order of packet arrival, the...first-in first-out memory [stores] the packet write address

information...one after another” (Col. 10, lines 27-31). However, both the buffer memory and the FIFO memory of Nakase et al. lack two file systems. Each memory has a single method of storage—the buffer memory assigning addresses to packets of data and the FIFO memory storing data in an ordered stack. This is unlike the present claimed invention which uses two file systems.

Furthermore, both memories described by Nakase et al. store data directly into a buffer, wherein the buffers contain no physical partitions, areas, or blocks to separate the stored data. This is wholly unlike the present claimed invention which stores data using a file system with blocks or areas of a specified size. Thus, unlike the present claimed invention, Nakase et al. can not differentiate between data types based on the size of the block or area it inhabits. Therefore, Nakase et al. neither disclose nor suggest “means of storage comprising two file systems having **different recording block sizes**” as recited in claim 16 of the present invention. Additionally, Nakase et al. neither disclose nor suggest “a first area of a block whose fixed size is equal to said predetermined quantity and in a second area of this block, the size of this second area being fixed and chosen in such a way that it is greater than or equal to the maximum quantity of audio data which can be accumulated while obtaining said predetermined quantity of video data” as recited in claim 28 of the present invention. In addition, Nakase et al. store both video and audio packets in the buffer memory. This is unlike the present claimed invention which stores video data in a first memory and audio data in a second memory. Therefore, Nakase et al. neither disclose nor suggest “recording of the video data accumulated in said first memory and of the audio data accumulated in the second memory respectively” as recited in claim 28 of the present invention.

The Office Action asserts even further that Nakase et al. disclose determining the size of the second area according the maximum quantity of audio data that can be accumulated while obtaining the video data of the first area. However, the packet buffer and FIFO memory of Nakase et al. do not contain blocks or areas whose sizes are dependant on one another. The sizes of the packet buffer and the FIFO memory are independent from one another. Thus, Nakase et al. can not disclose a second area being fixed based upon the fixed size of a first area. Therefore, Nakase et al. neither disclose nor suggest a “size of this second area being fixed and chosen in such a way that it is greater than or equal to the maximum quantity of audio data which can be accumulated while obtaining said predetermined quantity of video data” as recited in claim 28 of the present invention.

As claims 22-27 and 30-31 are dependant on independent claims 16 and 28, respectively, it is respectfully submitted that they are allowable for the same reasons as discussed above regarding independent claims 16 and 28. . In view of the above remarks it is respectfully submitted that claims 16, 22-28 and 30-31 are allowable.

In view of the above remarks and amendments to the claims it is respectfully submitted that there is no 35 USC 112 compliant enabling disclosure in Nakase et al. showing the above discussed features. It is thus further respectfully submitted that claims 16, 22-28 and 30-31 are not anticipated by Nakase et al. It is thus, further respectfully submitted that this rejection is satisfied and should be withdrawn.

Rejection of Claim 29 under 35 U.S.C. 103(a)

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakase et al. (U.S. Patent No. 5,742,361).

The Office Action asserts that it is well known in the art to scale the ratios of the first and second areas to be greater than or equal to the maximum ratio of the bit rate of video and audio data. However, Nakase et al., as discussed above, neither disclose nor suggest the “simultaneous accumulation of the demultiplexed video data in a first memory and of the demultiplexed audio data in a second memory” as recited in claim 28 of the present invention. Additionally, as discussed above, Nakase et al. neither disclose nor suggest recording in “a first area of a block who fixed size is equal to said predetermined quantity and in a second area of this block, the size of this second area being fixed and chosen in such a way that it is greater than or equal to the maximum quantity of audio data which can be accumulated while obtaining said predetermined quantity of video data” as recited in claim 28 of the present invention. As claim 29 is dependant on independent claim 28 it is respectfully submitted that it is allowable for the same reasons as discussed above in respect to claim 28.

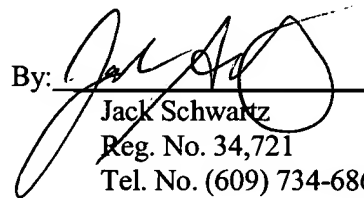
In view of the above remarks and amendments to the claims it is respectfully submitted that there is no 35 USC 112 compliant enabling disclosure in Nakase et al. showing the above discussed features. It is thus, further respectfully submitted that this rejection is satisfied and should be withdrawn.

The applicant respectfully submits, in view of the above arguments, that the all arguments made by the Examiner have been addressed and this rejection should be withdrawn. Therefore, the applicant respectfully submits that the present claimed invention is patentable.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

Respectfully submitted,

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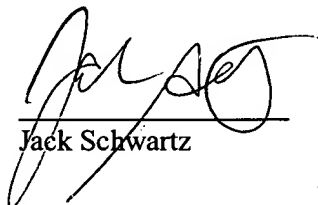
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